

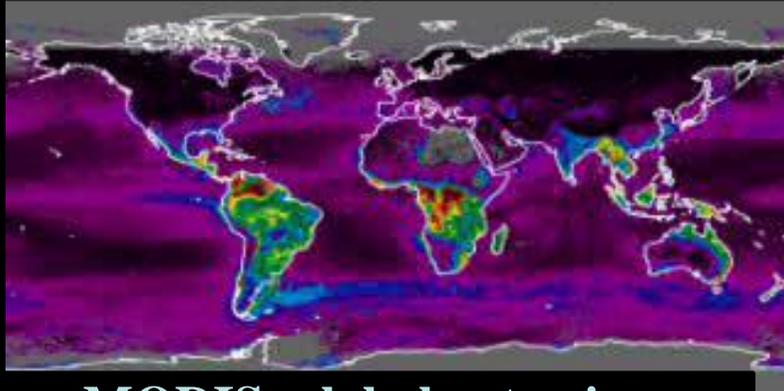
NASA's Earth Observing System Terra Mission

Jon Ranson, Project Scientist

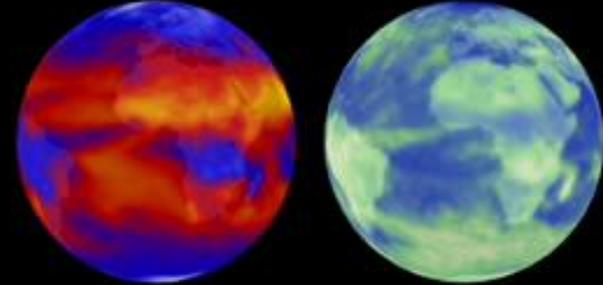


MODIS Science Team Meeting Baltimore, MD
March 22, 2005

Accomplishments

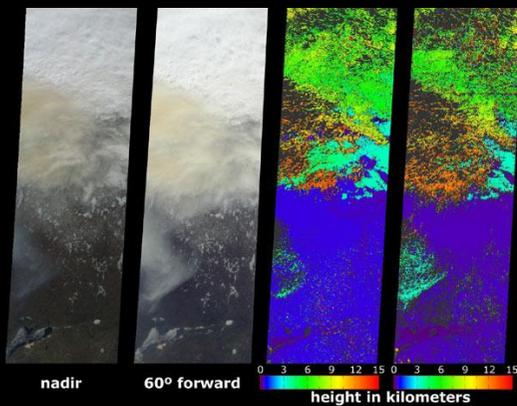


MODIS- global net primary productivity



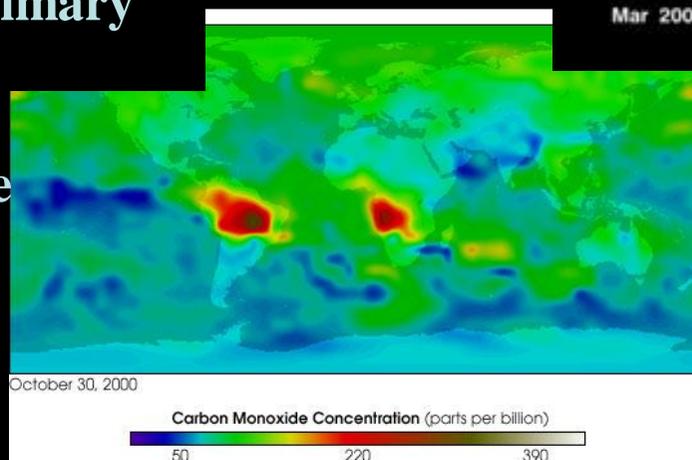
CERES – global shortwave and longwave radiation

MISR – aerosol profile



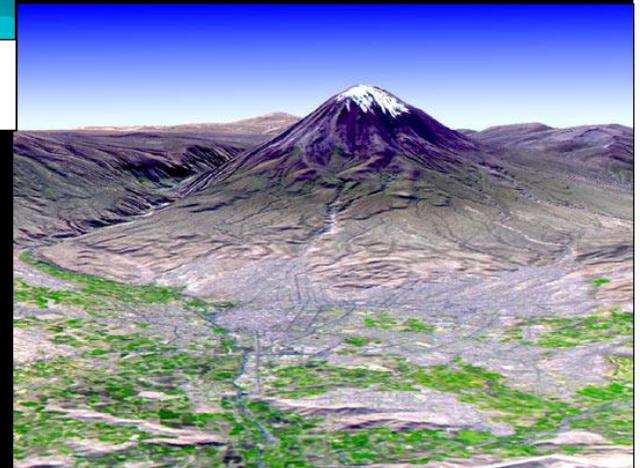
MISR

Image credit:
NASA/GSFC/LaRC/JPL
MISR Team



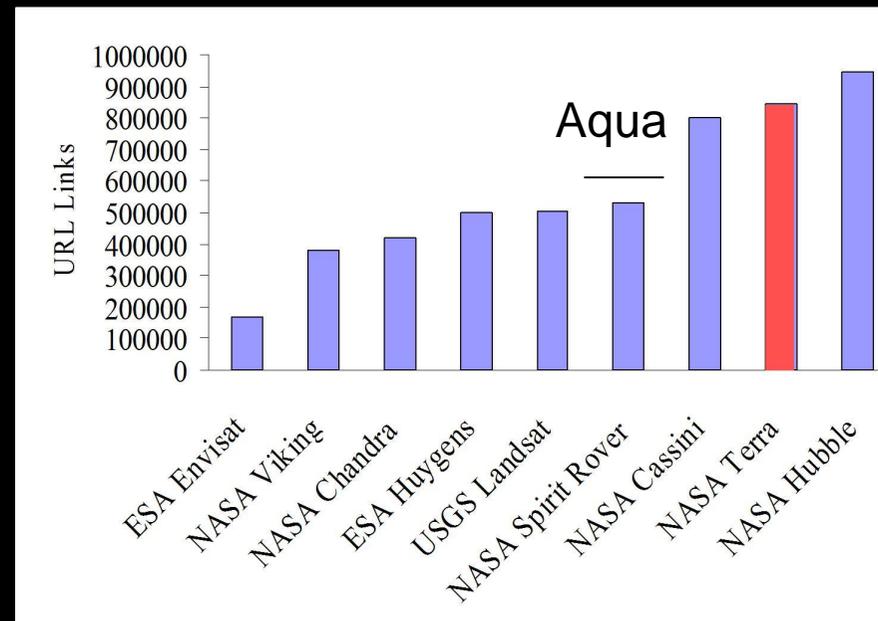
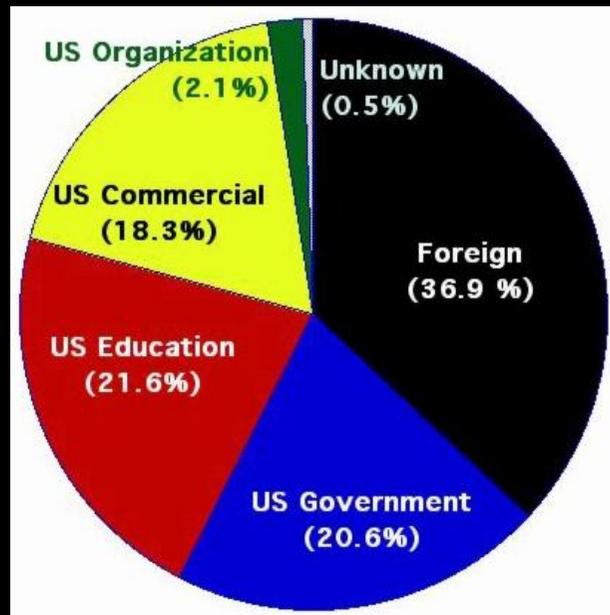
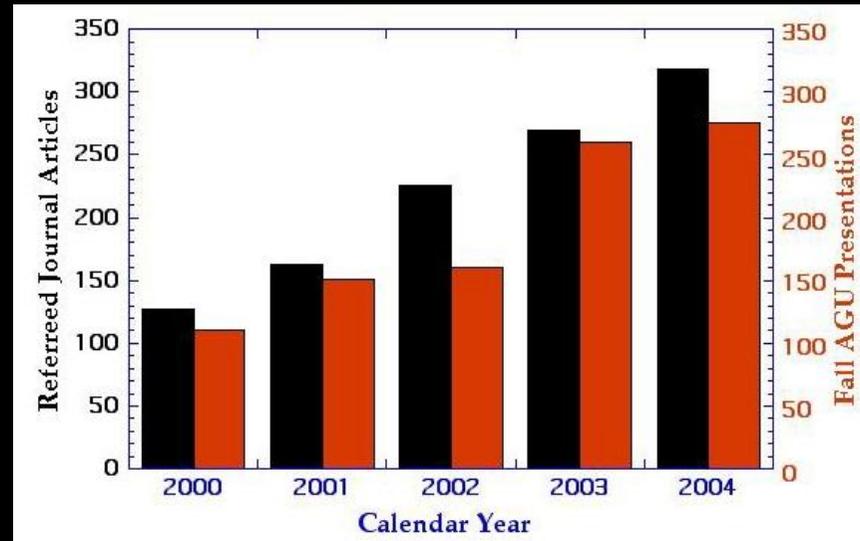
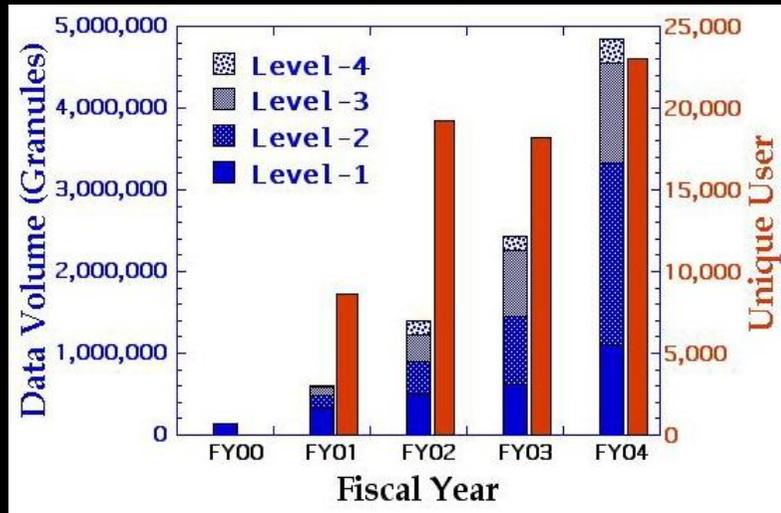
MOPITT – carbon monoxide

ASTER – 3-D land and natural hazards





TERRA'S SCIENCE VALUE





MISR Image, Dec. 26, 2004 located along the shores of Andhra Pradesh, India, and covers an area of 42 kilometers x 37 kilometers.

Terra Status

- Five years of science as of Feb. 24, 2005
- 27000 + orbits
- All instruments acquiring science data
- Unprecedented volumes of validated science data now in Distributed Active Archive Centers (DAACs)
- Joined by new EOS Mission, Aura, this past year.
- A few anomalies this past year – Solid State Recorder, ASTER SWIR temps.– FOT and IOTs all rose to the occasion in a professional and efficient manner.



Terra Status

- The SSR anomalies have reduced recording capacity to minimum needed for current science data collection.
- Plan devised to recycle power in SSR boards to recover them. - HQ- wait for loss of additional before then recycle.
- Deep Space and Lunar Cal report in preparation. 3rd maneuver TBD
- Special Issue on data fusion being considered: Interplatform (e.g., MODIS+MISR), intraplatform (e.g, MISR+Landsat) , inter-mission (e.g., Terra MODIS+Terra Aqua)data



Terra Issues

- Terra/Aqua Follow-on (i.e, NPP)
- Long Term Archive
- NASA Transformation
- New for Earth Sciences, a Senior Review of all missions that are at the end of their design life.
Review in March 2005



•NASA Senior Review

- NASA's Science Management Directorate (SMD) periodically conducts comparative reviews of Mission Operations and Data Analysis (MO&DA) programs to maximize the scientific return from these programs within finite resources.
- The acronym "MO&DA" encompasses operating missions, data analysis from current and past missions, and supporting science data processing and archive centers.
- At present, there are more than 18 missions returning science data support that NASA's Earth Science research programs.
- Most of these are under the Senior Review this year

TRMM	TOMS	UARS	SeaWiFS
Terra	ICESat	Jason-1	QuickSCAT
ERBS	SAGE III	POAM	GRACE
ACRIMSAT	GPS	Atmospheric	Limb Sounding



NASA Senior Review

- NASA uses recommendations from the Senior Reviews to define an implementation strategy and give programmatic direction to the missions and projects concerned for the next two to four fiscal years.
- Terra Extended Mission Proposal [FY 06 to FY- 09] submitted to Earth-Sun System Division (ESSD) of the Science Missions Directorate at NASA HQ – March 16, 2005.
- Concentrated on HQ focus area science questions
 - Systematic observations (MODIS, CERES, ASTER)
 - Discovery of Earth System processes with a multi-sensor, multi-platform approach



NASA Senior Review

Schedule:

Draft call for proposals issued: November 19, 2004

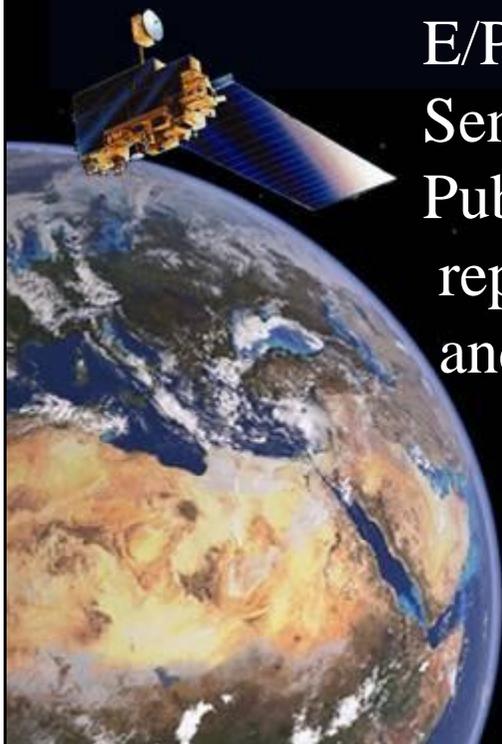
Call for Proposals issued: January 12, 2005

Proposals due: March 16, 2005

E/PO panel meets: mid-April, 2005

Senior Review panel meets: April 25-29, 2005

Publication of the panel's
report, new budget guidelines
and instructions: on or about June 15, 2005



STAY TUNED

